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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,385	12/12/2003	Shuichi Suzuki	520.43328X00	8521

20457 7590 06/27/2005

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EXAMINER

CANTELMO, GREGG

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,385

Applicant(s)

SUZUKI ET AL.

Examiner

Gregg Cantelmo

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/12/03 & 2/22/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Response to Preliminary Amendment

1. In response to the preliminary amendment received February 22, 2005:
 - a. Claims 1-7 are pending. Claims 8-11 have been cancelled as per Applicant's request.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statements filed December 12, 2003 and February 22, 2005, have been placed in the application file and the information referred to therein has been considered as to the merits.

Drawings

4. The drawings received December 12, 2003 are acceptable for examination purposes.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Covalently bonded catalyst carrier and catalytic component.

Claim Rejections - 35 USC § 112

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6. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. the covalent bond critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The claims do not clearly require covalent bonding but only that the materials for the catalytic material and catalyst carrier are such that they can covalently bond. Thus the claims are broader than applicant's invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent Application Publication No. 2002/0127440 (Yamamoto).

Yamamoto discloses a catalytic material comprising a catalytic material and catalyst material which are covalently bonded (paragraph [0032] as applied to claims 1 and 7).

The catalyst carrier contains carbon (paragraph [0032] as applied to claim 2).

The catalytic component can be platinum (example 1 as applied to claims 4-6).

8. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,380,126 (Finkelshtain).

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Finkelshtain discloses a catalytic material comprising a catalytic material and catalyst material which are covalently bonded (Fig. 2c and col. 8 ll. 14-25 as applied to claims 1 and 7).

The catalyst carrier contains carbon (paragraph [0032] as applied to claim 2).

The catalyst carrier includes a nitrogen atom component in the carbon network (Fig. 2c as applied to claims 3 and 7).

The catalytic component can be platinum (Fig. 2c as applied to claims 4-6).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-3 and 7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of copending Application No. 11/062,597. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Copending Application No. 11/062,597 claims a MEA wherein the MEA includes a catalytic material comprising a catalytic component and a catalyst carrier for

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supporting said catalytic component; wherein the catalyst carrier contains atoms that can be able to form covalent bonds with said catalytic component (claim 4 as applied to instant claim 1).

The catalyst carrier contains carbon (claim 4 as applied to instant claim 2).

The catalyst carrier has a structure in which part of the carbon atoms is replaced with atoms that can be able to form covalent bonds with said catalytic component (claim 4 as applied to instant claim 3).

Copending Application No. 11/062,597 claims a catalytic material comprising a catalytic component and a catalyst carrier for supporting said catalytic component; wherein said catalyst carrier further contains a catalytic component and at least one member selected from the group consisting of nitrogen atoms, oxygen atoms, phosphorus atoms, and sulfur atoms (claim 4 as applied to instant claim 7).

While the instant claims are to the catalytic material and the claims of copending Application No. 11/062,597 claims are to a fuel cell system. The claims of copending Application No. 11/062,597 claims encompass the catalytic material of the instant claims and recite the same catalytic structure.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 4-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/062,597 in view of U.S. Patent No. 6,380,126 (Finkelshtain).

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The difference between the instant claims and copending Application No. 11/062,597 is that Copending Application No. 11/062,597 does not claim the specific catalyst materials.

Finkelshtain discloses a catalytic material having a carbon support and a platinum catalyst wherein the carbon support has a nitrogen atom component therein for covalently bonding to the catalyst.

Noble metal are well known in the art as suitable and preferable catalyst materials used in electrodes of a fuel cell since they provide the desired catalytic activity for converting the fuel cell reactants at the respective electrodes in order to generate electricity.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the claims of Copending Application No. 11/062,597 by using the catalyst materials in the electrode as taught by Finkelshtain since it would have provided the desired catalytic activity for converting the fuel cell reactants at the respective electrodes in order to generate electricity. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.

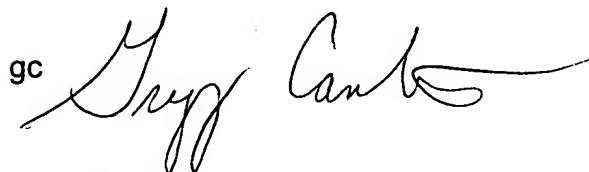
This is a provisional obviousness-type double patenting rejection.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (571) 272-1283. The examiner can normally be reached on Monday to Thursday from 9 a.m. to 6 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. FAXES received after 4 p.m. will not be processed until the following business day. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregg Cantelmo
Primary Examiner
Art Unit 1745

gc 

June 21, 2005